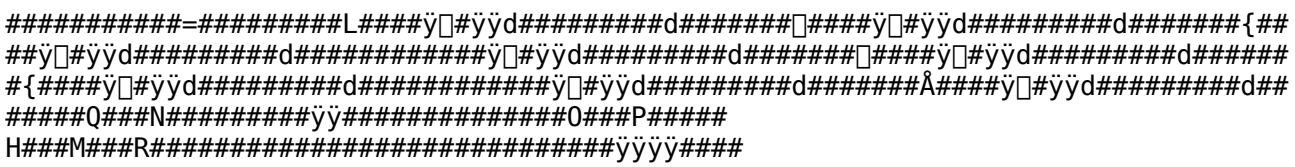

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ÿ#ÿÿB###ÿÿ#####ÿ□#ÿÿd######0##d#########?###DoD Leader□s Briefing:#Force Health
Protection Against #Anthrax#

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Ø### ##########ÿ□#ÿÿd#########d############# Anthrax is a known biological weapon Inhalational anthrax is highly lethal Vaccination against anthrax is critical for your protection This is a mandatory vaccination program except for legitimate medical exemptions and deferrals Anthrax vaccine is safe and effective

###ÿÿ#####ÿ□#ÿÿd#########d#########÷###When you leave here today, there are five important points that I want you to take with you. They are: Anthrax is a known biological weapon. The threat of biological warfare remains a constant risk to U.S. forces. The threat is real and failure to prepare would result in grave consequences - the former Director of the CIA referred to anthrax as the single most dangerous threat to our national security in the foreseeable future. There are at least 10 of our potential adversaries around the world that have an offensive biological warfare capability to deliver anthrax. This is more than twice the number of countries that maintained this capability in 1975 despite the fact that an international treaty was ratified that year to prohibit this activity. Inhalational anthrax is 99% lethal to unprotected individuals. Vaccination against anthrax is one of the critical components that will protect you in an anthrax attack. Other components are MOPP (Mission Oriented Protective Posture) gear, especially your protective mask, detection systems and antibiotics. This is one of several mandatory vaccination programs to protect our service men and women, and DoD emergency essential civilians and contractors. We will all receive this vaccine. There are personnel who will be exempted or deferred from receiving the anthrax vaccine. They may include: 1) Immunodeficient military personnel such as those receiving chemotherapy for cancer or who are HIV-positive; 2) Pregnant women; 3) Personnel with known hypersensitivity to the vaccine or any component of the vaccine; and 4) Personnel who are ill. This vaccine was licensed by the Food and Drug Administration (FDA) in 1970, using the same FDA licensing process as for all other U.S. manufactured vaccines. #

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û{#c### ##########ÿ□#ÿÿd#########d#########,###Recognized as an illness for
centuriesSpores can survive in soil for decades Once common where livestock were
raisedAnimal anthrax can be controlled through vaccination programs with an
animal vaccineHuman infection usually results from direct    contact with
infected animals or animal products
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###ÿÿ#####ÿ□#ÿÿd#########d#########ñ###Anthrax has been documented for thousands of years, perhaps as early as the Egyptian plagues in 1500 BC. The disease became known in the Middle Ages as the □Black Bane□ because it nearly destroyed the cattle herds in Europe. In the late 1800s, great scientists, such as Louis Pasteur, focused on this disease and developed the first man-made vaccine for animals.The bacterium that causes anthrax is Bacillus anthracis. This bacterium is unique because it internally forms a spore. This spore develops a tough protective coat which makes it resistant to drying, radiation, acids, chemical disinfectants, and heat. In fact, it is this spore that allows the bacterium to survive in the environment for decades.Animals normally inhale or swallow the spores while grazing. If they inhale or swallow enough spores to become infected, they develop anthrax and eventually die. Normally people can only become infected by direct contact with the infected animal or animal products, or by eating undercooked infected meat. Naturally occurring anthrax has been controlled throughout the world by animal vaccination and other preventive measures, although outbreaks still occur in regions where animals are not routinely vaccinated (parts of Africa and Asia).Anthrax is an effective weapon for several reasons which will be covered momentarily. The ability to release a highly lethal concentration of the spores in the air with mortalities exceeding 95 percent is our greatest concern. Weaponizing anthrax makes it possible to infect many people through the air without having contact with animals or animal products. The vaccine was approved by the FDA in 1970 and has been used safely in this country for nearly 30 years with the same FDA oversight required for all vaccines.þ

#################0##########################ÿ□#ÿÿd#########d#########2##□##*õaúÖ·#ÿÿ ###ÿÿ#####ÿ□#ÿÿd#########d#########|###Anthrax is the most likely Biological Warfare agent:Easy and cheap to produceSpores make anthrax an effective biological weaponCan be stored for a long time Can be dispersed in the air by a variety of weapons Inhalational anthrax is highly lethalOdorless, colorless, and difficult to detectAnthrax will cause widespread illness and death among unprotected exposed personnel

###ÿÿ#####ÿ□#ÿÿd#########d#########□###As I stated previously, the bacteria that cause anthrax can form spores with tough protective coats allowing them to survive in the environment for decades. Anthrax spores have several other characteristics that make them effective biological weapons: The spores can be produced in large quantities using a basic knowledge of biology and relatively unsophisticated equipment. The spores can then be stored in a bioweapons arsenal for decades without loss of viability.   Anthrax spores can be easily dispersed into the air by missiles, rockets, artillery shells, aerial bombs and sprayers from aircraft, trucks, and hand-held, and virtually any other conventional delivery system imaginable.   If an adversary succeeds in dispersing anthrax spores in the air, 99% of unprotected personnel who become ill from inhaling the spores will die. Weaponized anthrax is colorless, odorless and difficult to detect. By the time you develop symptoms chances are you will die despite the best efforts of modern medical science.Therefore, it is critical to remember that protection includes vaccination and MOPP gear, especially your protective mask.

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#####2##□##ùô#û##ë#ÿÿ####ÿÿ#####ÿ□#ÿÿd#########d#########□###Skin (Cutaneous)
Anthrax#- 95% of natural cases; spores enter skin breaks#- Responds well to
antibiotics□ 1 in 5 die if untreatedGastrointestinal Anthrax#- Ingestion (e.g.,
eating undercooked, infected meat) #- Severe GI symptoms□ 50% may die even with
treatmentInhalational Anthrax#- □Flu-like symptoms□ early, rapid deterioration,
and death#- Mortality may exceed 80% after symptoms occur, despite treatment
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###ÿÿ#####ÿ□#ÿÿd#########d######### ###The anthrax bacillus causes three types of disease. Skin (cutaneous) anthrax accounts for 95+% of the naturally-occurring cases in the world today. Upon contact with the organism through direct contact with animals, their tissues, or with contaminated products (e.g., clothing), the anthrax spores gain entry through breaks in the skin resulting in lesions. The head, forearms, and hands are common sites of infection. Untreated conditions may spread throughout the body resulting in overwhelming infection. Death may occur in 20% of these untreated cases. Gastrointestinal anthrax is relatively rare, and typically results from eating undercooked meat from an infected animal. Death occurs in half of the cases, even if promptly diagnosed and appropriately treated.Inhalational anthrax is the mode of a weaponized biological weapon agent. This is a relatively rare disease (called Woolsorter□s Disease) under natural conditions. The organism gains entry via the lungs, where it quickly makes its way to the lymph nodes in this region and ultimately is transferred throughout the body. Early symptoms are vague, expressing as □flu-like□ illness. Acute symptoms of respiratory distress, fever, meningitis, blood infections, organ failure, pneumonia, and shock follow in 3-5 days. Death occurs shortly thereafter. References: Benenson, Abram S., Control of Communicable Diseases Manual, American Public Health Association 1996

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      £#ÿÿ ###ÿÿ#####ÿ□#ÿÿd#########d#########!###Inhalational anthrax occurs when the spores enter the body through the lungsNot transmitted person to person Spores migrate to lymph system where bacteria multiply and produce lethal toxins Toxins cause bleeding and destruction of the brain or vital organs in the chest resulting in deatht

###ÿÿ#####ÿ□#ÿÿd#########d#########»###Inhalational anthrax is the disease that results from breathing in anthrax spores. Inhalational anthrax is not transmitted from person to person.Clearly, we cannot conduct experiments using lethal agents, like anthrax, on humans. Based on limited experience with naturally-occurring anthrax we can only estimate the exact lethal dose for humans. Through animal studies, however, scientists project that you can inhale enough anthrax spores in one breath to kill you. Disease occurs when anthrax spores enter the lungs, migrate to the lymph nodes, multiply, and produce toxins. The toxins cause bleeding and destruction of the brain or vital organs in the chest ultimately resulting in death. a

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ö#############ÿ□#ÿÿd#########d#########0###Vaccine primes body□s natural
defense system to fight anthrax Anthrax vaccine cannot cause anthraxCritical
part of your protection against anthraxLicensed by the Food and Drug
Administration in 1970Safely used for nearly 30 yearsSupplemental tests before
released to the Department of Defense (DoD)
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##########ÿ□#ÿÿd#########d#########=###There is nothing in the anthrax vaccine that can cause the disease anthrax.Monkeys protected with the same human anthrax vaccine we will take, have survived inhaling over 760 times the lethal amount of anthrax spores. We already receive vaccines to protect us against tetanus, typhoid, diphtheria, and other diseases. We will receive the anthrax vaccine to protect us against this deadly biological weapon. Like all other vaccines, this vaccine stimulates your immune system. As a result, your immune system will protect you from the toxins the bacteria produces that would otherwise kill you. The anthrax vaccine was licensed by the FDA in 1970, using the same FDA licensing process as for other vaccines. This vaccine is manufactured by Bioport formerly known as Michigan Biologic Products Institute (MBPI) under the FDA Establishment License No. 99. This vaccine has been safely administered to at risk veterinarians, laboratory workers, and livestock handlers in the United States for nearly three decades. The anthrax vaccine stockpile meets FDA approval and passes supplemental quality control testing prior to being released. Ivins BE, Fellows PF, Pitt MLM, et al. Efficacy of a standard human anthrax vaccine against Bacillus anthracis aerosol spore challenge in rhesus monkeys. Salisbury Medical Bulletin. 87: 130. 1996.t

#################0##########################ÿ□#ÿÿd#########d#########2##□##¶õVûä Ô#ÿÿ ###ÿÿ#####ÿ□#ÿÿd#########d#########\###Anthrax vaccine, like other vaccines, stimulates your body to produce protective antibodiesEveryone has some antibody response after 2 dosesThe full series is needed to obtain maximum and on-going protectionEveryone gets some protectionEven with a good antibody response, your defense system can be overwhelmed given sufficient number of spores

##########ÿ□#ÿÿd#########d#########M###We have some experience with anthrax in humans. A clinical study using a similar anthrax vaccine in textile workers in the Northeastern U.S. demonstrated protection against anthrax of the skin (cutaneous anthrax). Five cases of inhalational anthrax occurred in the unvaccinated group. No cases of inhalational anthrax occurred in the vaccinated group. This strongly suggests vaccine protection against inhalational anthrax in humans.Even with 100% antibody response, your defense system can be overwhelmed given exposure to sufficient number of spores. Therefore, it is critical that even when we are fully vaccinated we must use our protective masks if threat is imminent.Reference: Brachman PS, Gold H, Plotkin SA, Fekety FR, Werrin M, Ingraham NR. Field evaluation of a human anthrax vaccine. Am J Public Health. 1962;52:632-645.ô

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All vaccinations routinely deferred during pregnancyContinue vaccinating when no longer pregnantBefore vaccination, women should tell their healthcare provider if they think or know they are pregnant Anthrax vaccine can be safely given to women who are breast feedingNo reason to delay pregnancy or conception efforts after vaccinationt

##########ÿ□#ÿÿd#########d#########-###Women who may be pregnant will be referred for further medical evaluation before vaccination continues. Anthrax vaccine, like all other vaccines in the U.S., has not been studied for effects on the unborn child. Therefore, all vaccinations, including anthrax, should be routinely deferred during pregnancy unless clearly needed. Every woman will be questioned about the possibility of pregnancy. It is standard, prudent medical practice not to use any vaccine or most medications, for that matter, during pregnancy. Pregnant women will not receive the anthrax vaccine unless anthrax exposure occurs or is imminent. If a woman becomes pregnant after beginning the vaccine series, the series will be suspended until she is no longer pregnant. The anthrax vaccine contains no living or dead anthrax organisms. If the anthrax vaccine is inadvertently given to a pregnant woman, no harm to the baby is expected. Because the vaccine contains no living or dead anthrax organisms there is no reason to delay pregnancy after receiving a dose of vaccine. The vaccine can be safely given to women who are breast feeding. The Centers for Disease Control and Prevention Advisory Committee on Immunization Practices reports in 1994 that, □Neither killed nor live vaccines affect safety of breast feeding for mothers or infants.□ e

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#################0##########################ÿ□#ÿÿd#########d#########2##□##¦õSûÒ
      Y### ##########ÿ□#ÿÿd#########d#########Õ###The anthrax vaccine contains
no living or dead anthrax organismsPain may occur at injection siteMay
experience mild, temporary side effectsNo scientific evidence that any vaccine
causes cancer or infertility(
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###ÿÿ#####ÿ·#ÿÿd#########d###õÿ####Y###Each package of anthrax vaccine states “Studies have not been performed to ascertain whether Anthrax Vaccine Adsorbed has carcinogenic action, or any effect on fertility.” Polio, Yellow Fever, Hepatitis A, Hepatitis B, Tetanus, Diphtheria, Typhoid, and MMR vaccines all have similar statements regarding long term studies for cancer and fertility in both their product literature and in the Physician’s Desk Reference, yet we routinely use these vaccines in the United States. Virtually no vaccine is studied longitudinally for cancer or reproductive health. Questions on these topics are sometimes raised by language in the product insert.Prevailing scientific knowledge based on millions of administered vaccines over several decades is that vaccines do not contribute to these problems. The anthrax vaccine has been used safely for nearly 30 years.

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#S#########S#################S#########S####ÿ□#ÿÿd#########d#########2##□##ªö##V
      î#############ÿ□#ÿÿd#########d#########-###6 shots over 18 months, then
annual booster O
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###ÿÿ#####ÿ□#ÿÿd#########d#########c###As is required with all vaccines, we use the FDA approved schedule. Recipients will receive the first shot, two weeks later the second shot, and two weeks later the third shot. Six months after the first shot, recipients receive the fourth shot, six months later the fifth shot, and six months later the sixth shot. These will be followed by annual boosters. Each shot will be documented in at least three separate locations: (1) your health record, (2) your yellow shot card, and (3) an automated immunization tracking system.As with most vaccines, many recipients may experience temporary pain and swelling in your arm after the shot. Mild side effects such as redness and tenderness at the site of inoculation occur in about 30-percent of recipients. Some recipients also experience itching and a small knot under the skin where you got the shot. The knot may last up to a few weeks, but will eventually go away. These side effects are not serious and will not prevent vaccinees from performing their normal duties. Individuals with any concerns about a reaction immediately should consult a health care provider.ÿ

#################,##########################ÿ□#ÿÿd#########d#########2##□##¼õ#ú□t#ÿÿ####ÿÿ#####ÿ□#ÿÿd#########d#########v###Mild local reactions (30%)Redness, tenderness at site for up to 24-72 hoursSubcutaneous nodules (lumps)Moderate local reactions (4%)Redness/hardness >5 cm, tenderness, itching for up to 24-72 hoursSevere local reactions rare (<1%) Very rare systemic reactions occur (<0.2%)Extremely rare systemic reactions (e.g., Guillain Barre Syndrome) may occur with all vaccines

##########ÿ□#ÿÿd#########d#########E###As with most vaccines, many of you may experience temporary pain and swelling in your arm after the shot. Mild side effects such as redness and tenderness at the site of inoculation occur in about 30-percent of recipients. Some of you may also experience itching and a small knot under the skin where you got the shot. The knot may last up to a few weeks, but will eventually go away. These side effects are not serious and will not prevent you from performing your normal duties. If you have any concerns about a reaction immediately consult with your health care provider. #

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Ô#ÿÿ####ÿÿ#####ÿ□#ÿÿd#########d#########r###FDA National Vaccine Adverse Event Reporting System (VAERS)FDA and DoD review 100% of adverse events reports submitted to FDAAnyone can submit a Form VAERS-1A Form VAERS-1 submission is REQUIRED for:Loss of duty > 24 hours HospitalizationSuspected vaccine lot contaminationForm VAERS-1 may be obtained by calling: 1-800-822-7967 or at www.fda.gov/cber/vaers.htm.

###ÿÿ#####ÿ□#ÿÿd#########d#############Adverse Event Reporting. Any adverse reaction which results in 24 hours or more time lost from duty, or hospitalization, must be reported on the Health and Human Services Vaccine Adverse Events Reporting System, also known as VAERS. Also any potential contamination of vaccine lots must be reported through a form VAERS-1. However, any vaccine-associated adverse event may be reported through VAERS by either the patient or provider. Reports to VAERS may be made in writing or by calling a toll free number, 1-800-822-7967. Reporting instructions are available on the Internet at http://www.fda.gov/cber/vaers.htm.As with any other vaccine, any severe reaction to the anthrax vaccine should be well documented in the patient□s medical record. Mandatory information that should be included is the type of vaccine, lot number and manufacturer, date of administration, name and location of medical facility, and the type and severity of the reaction. See your Service□s policy on adverse event reporting for routing of these reports.o

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      #ûÿÿ,###ÿÿ#####ÿ□#ÿÿd#########d#########+###Reserve Component #Adverse
Event Proceduresn
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##########ÿ□#ÿÿd#########d#########?###Adverse Event Reporting. Any adverse reaction which occurs in a Reserve Component member should be managed consistent with the Active Component requirements. If a vaccine-associated adverse event occurs in a non-duty status, the individual should seek medical care as appropriate. The individual must also report the event to the unit commander or designated representative as soon as possible. The commander will initiate a Line of Duty (LOD) and/or Notice of Eligibility (NOE) as appropriate. An individual, health care provider, or commander may submit a VAERS report.#

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#### ##########ÿ□#ÿÿd#########d#########ä###  Anthrax is a known biological
weapon   Inhalational anthrax is highly lethal  Vaccination against anthrax is
critical for    your protection  This is a mandatory vaccination program
Anthrax vaccine is safe and effective
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##########ÿ□#ÿÿd#########d#########~###No nation can match U.S. conventional military strength. There are at least 10 known potential adversaries that have an offensive capability to use anthrax as a biological weapon and every indication suggests they are prepared to use this as a means to counter our conventional superiority.The Department of Defense has the responsibility to protect us from this deadly biological weapon.Without the anthrax vaccine, anthrax weapons can incapacitate and kill us. This can destroy our forces in combat. The anthrax vaccine and MOPP gear are the most effective personal measures to protect us. ANTHRAX KILLS□. VACCINATION PROTECTS

###ÿÿ#####ÿ#ÿÿd#########d#########´###Do you have any questions?These are your points of contact if you want any more information.Additionally, there is a wealth of information on the internet at www.anthrax.osd.mil